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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.              | CONFIRMATION NO.       |
|--|-------------|----------------------|----------------------------------|------------------------|
| 10/812,406   | 03/26/2004  | Nobuyuki Takase      | 3599-000004/CO                   | 1285                   |
| 27572 7590 05/03/2007<br>HARNESS, DICKY & PIERCE, P.L.C.<br>P.O. BOX 828<br>BLOOMFIELD HILLS, MI 48303 |             |                      | EXAMINER<br>MORILLO, JANEL COMBS |                        |
|  |             |                      | ART UNIT<br>1742                 | PAPER NUMBER           |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/812,406

**Applicant(s)**

TAKASE ET AL.

**Examiner**

Janelle Combs-Morillo

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-176769A (JP'769).

JP'769 teaches an aluminum alloy for extrusion molding comprising (in wt%): 3.0-6.0% Si, 0.1-1.0% Mn, 0.4-1.0% Mg, optionally one or more from: 0.15-2.0% Cu, 0.05-0.30% Cr, 0.1-1.0% Fe, 0.01-0.10% Ti, and typically 0.00-0.01% Zn (see examples Table 2-1), which overlaps the instant ranges of Si, Cr, Fe, Mn, Cu, and Zn, and touches the boundary/is a close approximation of the presently claimed maximum of Mg.

Further concerning the minimum range of Mg taught by JP'769 of 0.4% does not fall within the presently claimed maximum of 0.39% Mg, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). Because 0.4% Mg is held to be close enough that one skilled in the art would have expected them to have the same properties as 0.39% Mg, it is held that JP'769 has created a prima facie case of obviousness of the presently claimed invention. Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05.

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Concerning the instant claim language of “excelling in caulking properties”, because the prior art teaches an overlapping alloy composition, processed in a substantially similar manner, then substantially the same properties, such as caulking properties, are also expected to result (see also above discussion).

When the Examiner has established a *prima facie* obviousness, the burden then shifts to the applicant to rebut. *In re Dillon*, 919 F.2d 688, 692, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990) (en banc). Rebuttal may take the form of “a comparison of test data showing that the claimed compositions possess unexpectedly improved properties... that the prior art does not have, that the prior art is so deficient that there is no motivation to make what might otherwise appear to be obvious changes, or any other argument.. that is pertinent.” *Id.* at 692-93; USPQ2d 1901. Applicant has not clearly shown specific unexpected results with respect to the prior art of record or criticality of the instant claimed range (wherein said results must be fully commensurate in scope with the instantly claimed ranges, etc. see MPEP 716.02 d).

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

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with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4: Claims 1-2 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 7,175,719. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of US'719 teach an overlapping Al-Si-Mg-Mn alloy composition. Because of the overlap, the rejection is proper (*MPEP 2144.05 I*).

#### ***Response to Amendment/Arguments***

5. In the response filed on January 30, 2007, applicant amended claims 1 and 2 and submitted various arguments traversing the rejections of record. The examiner agrees that no new matter has been added.

6. The examiner agrees the instant amendment has overcome the prior art of rejection in view Bekki.

7. Applicant's argument that the present invention is allowable over the prior art of record because the Mg and Mn content is critical to achieving superior (high) critical upsetting ratio, has been found partially persuasive. Applicant has not met the burden of clearly shown unexpected results with respect to an indirect comparison, because though data points 11-15 are selected from the ranges taught by JP'769 (item 15 of declaration), it is not clear data points are not fully representative/ commensurate in scope with the closest prior art's teaching, see MPEP 716.02

(d). Evidence of unexpected properties may be in the form of a direct or indirect comparison of the claimed invention with the closest prior art which is commensurate in scope with the claims.

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See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) and MPEP §716.02(d) - §716.02(e). To establish unexpected results over a claimed range (indirect comparison), applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960).

8. Furthermore, with respect to a direct comparison to the closest prior art, the examiner points out that Ex. I of JP'769 is the closest to the instantly claimed invention, consisting of (in wt%): 4.06% Si, 0.28% Fe, 0.15% Cu, 0.05% Ti, 0.19% Mn, 0.40% Mg, 0.15% Cr, 0.01% Zn, balance aluminum (JP'769, Table 2-1). Said example is substantially identical *in composition* to comparative example 16 in the declaration filed 1/30/2007, wherein Comp. Ex. 16 consists of: 4.04% Si, 0.30% Fe, 0.15% Cu, 0.03% Ti, 0.19% Mn, 0.40% Mg, 0.15% Cr, 0.01% Zn, balance aluminum, and exhibits a critical upsetting ratio of 40.1%, which applicant argues is inferior to the instant invention of a wear resistant Al-Si-Cu-Fe-Cr alloy substantially as presently claimed, complete with the claimed Mn and Mg ranges that are critical to obtaining an upsetting ratio  $\geq$  43%. However, though the examiner agrees that applicant has shown unexpected results with respect to Comp. Ex. 16 in the declaration filed 1/30/2007, applicant does not detail the processing history of said example (it is not clear said Ex. is clearly representative of the closest prior art of JP'769, nor has applicant argued said example is closer to the instant invention than Ex. I of JP'769), and has not clearly overcome the rejection in view of JP'769. The examiner suggests applicant file a supplemental declaration under 37 CFR 1.132, detailing the processing history and/or explaining why Comp. Ex. 16 is clearly representative of the closest prior art of JP'769, or closer to the instant invention than Ex. I of JP'769.

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9. Applicants may compare the claimed invention with prior art that is more closely related to the invention than the prior art relied upon by the examiner. In re Holladay, 584 F.2d 384, 199 USPQ 516 (CCPA 1978); Ex parte Humber, 217 USPQ 265 (Bd. App. 1961) MPEP 716.02(d).

10. An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979), see also MPEP 716.02(e). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978) (emphasis in original). Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained, In re Finley, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).

### *Conclusion*

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JCM  
April 27, 2007



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